WEAR VOL. 138 NOS. 1–2 JUNE 1990

CONTENTS

Sliding wear characteristics of austempered ductile iron with and without laser hardening 1
G.-X. Lu and H. Zhang (Changchun, China)

The shared-load wear model in lubricated sliding: scuffing criteria and wear coefficients 13
Y.-Z. Lee and K. C. Ludema (Ann Arbor, MI, U.S.A.)

Wear-corrosion behavior of cast-in composite materials reinforced by WC particles 23
J.-L. Ji and J.-L. Tang (Xian, China)

The mechanisms of erosion of unfilled elastomers by solid particle impact 33
J. C. Arnold and I. M. Hutchings (Cambridge, U.K.)

A study of high chromium cast iron on abrasion resistance and impact fatigue resistance 47
X. H. Fan, L. He and Q. D. Zhou (Xian, China)

Friction and wear studies of polyetherimide composites 61
J. Bijwe, U. S. Tewari and P. Vasudevan (New Delhi, India)

Influence of fillers and fibre reinforcement on abrasive wear resistance of some polymeric composites 77
J. Bijwe, C. M. Logani and U. S. Tewari (New Delhi, India)

Sliding wear of thermal-sprayed chromia coatings 93
B.-Q. Wang, Z. R. Shui (Xian, China) and A. V. Levy (Berkeley, CA, U.S.A.)

The abrasion/erosion and erosion–corrosion characteristics of steels 111
A. V. Levy (Berkeley, CA, U.S.A.)

Erosion behavior of SiC fiber–SiC matrix composites 125
B.-Q. Wang (Xian, China) and A. V. Levy (Berkeley, CA, U.S.A.)

A parametric study of improving tool life by electrospark deposition 137
E. A. Brown (Corvallis, OR, U.S.A.), G. L. Sheldon (Vancouver, WA, U.S.A.) and A. E. Bayoumi (Pullman, WA, U.S.A.)

Fretting maps and fretting behavior of some f.c.c. metal alloys 153
O. Vingsbo, M. Odfalk and N.-E. Shen (Houston, TX, U.S.A.)

The measurement of sliding friction and wear of ceramics at high temperature 169
M. G. Gee (Teddington, U.K.), C. S. Matharu (Uxbridge, U.K.), E. A. Almond (Teddington, U.K.) and T. S. Eyre (Uxbridge, U.K.)

Erodent particle characterization and the effect of particle size and shape on erosion 189
S. Bahadur and R. Badruddin (Ames, IA, U.S.A.)

(continued on inside back cover)

Submission of papers

Three copies of papers should be sent to

Editorial Office (U.K.) of Elsevier Sequoia, Mayfield House, 256 Banbury Road, Oxford OX2 7DH, U.K.

No responsibility is assumed by the Publisher for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products, instructions or ideas contained in the material herein.

Printed in The Netherlands

INSTRUCTIONS TO AUTHORS

Submission of papers

Three copies of papers should be sent to
Editorial Office (U.K.) of Elsevier Sequoia, Mayfield House, 256 Banbury Road, Oxford OX2 7DH, U.K.

CONTENTS *(continued)*

Measurements of the friction and wear behaviour of ceramic guides during the production of nylon 209
P. M. Ramsey and T. F. Page (Newcastle upon Tyne, U.K.)

The interactions of an Al_2O_3–SiC-whisker-reinforced composite ceramic with liquid metals 225
R. Barrett and T. F. Page (Newcastle upon Tyne, U.K.)

The effect of annealing on the hardness, interfacial adhesion and wear behaviour of plasma-vapour-deposited TiN coatings on steels 239
J. C. Knight (Newcastle upon Tyne, U.K.)

Modelling of wear under partial elastohydrodynamic lubrication conditions 259
V. R. K. Sastry (Dehra Dun, India), D. V. Singh (Roorkee, India) and A. Sethuramiah (New Delhi, India)

Friction and wear behavior of high silicon bainitic structures in austempered cast iron and steel 269
L. Ping, S. Bahadur and J. D. Verhoeven (Ames, IA, U.S.A.)

The influence of internal stress and preferred orientation on the abrasive wear resistance of a boronized medium carbon steel 285
Z. Lin, Z. Wang (Changchun, China) and X. Sun (Windsor, Ontario, Canada)

Notes on Contributors 295

Author Index 299

Subject Index 301

© ELSEVIER SEQUOIA S.A. (1990)

0043-1648/90/$3.50

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the publisher, Elsevier Sequoia S.A., P.O. Box 564, 1001 Lausanne 1, Switzerland.
Submission of an article for publication implies the transfer of the copyright from the author(s) to the publisher and entails the author(s) irrevocable and exclusive authorization of the publisher to collect any sums or considerations for copying or reproduction payable by third parties.
Upon acceptance of an article by the journal, the author(s) will be asked to transfer copyright of the article to the publisher. This transfer will ensure the widest possible dissemination of information.

For Material Subject to U.S. Copyright Law
Special regulations for readers in the U.S.A.
This journal has been registered with the Copyright Clearance Center, Inc., 21 Congress Street, Salem, MA 01970, U.S.A. Consent is given for copying of articles for personal use, or for the personal use of specific clients. This consent is given on the condition that the copier pays through the Center the per-copy fee stated in the code on the first page of each article for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. If no code appears in an article, the author has not given broad consent to copy and permission to copy must be obtained directly from the author. All articles published prior to 1982 may be copied for a per-copy fee of U.S. $2.50, also payable through the Center. This consent does not extend to other kinds of copying, such as for general distribution, resale, advertising and promotion purposes or for creating new collective works. Special written permission must be obtained from the publisher for such copying.